REMARKS

The specification has been amended to identify a serial number of the referenced copending application.

Claim 1 has been amended to more particularly point out that the stator assembly in Applicants' over molded motor stator structure comprises a stator core and a bobbin assembly. The claim is also amended to more particularly recite that the bobbin assembly includes a bobbin and a wire coil would about the bobbin, as described at page 7, lines 27-30, and page 8, lines 1-4. The claim is further amended to affirmatively recite the molded main body as an element of the claimed over molded motor stator structure.

Claim Rejection under 35 USC § 102(b)

Claims 1, 2, 4-7, 9 and 10 are rejected under 35 USC § 102(b) as anticipated by United States Patent No. 5,806,169, issued to Trago et al. in 1998.

Trago et al. is readily distinguished from Applicants' over molded structure. In a first intense, Trago et al. describe a stator assembly in which windings 73 are wound directly about poles 66, see Fig. 12 and col. 7, lines 65-67. The poles are designed with concave sides for holding the windings. In contrast, Applicants' stator structure comprises a bobbin assembly that includes a wire coil wound about a bobbin. Nothing in Trago et al. contemplates a bobbin assembly, nor would the concave pole design be suited for use with a bobbin assembly.

More significantly, the stator assembly in Trago et al. includes a plastic mass that is injected molded so that the plastic projects into the central bore after molding, and center is machined to form bore 30, see col. 5, lines 7-33. As illustrated in Fig. 9, a thin layer of plastic 98 covers the stator pole teeth and lines the center bore, col. 8, lines 65-66, and also col. 10, lines 46-48. The plastic lining is needed to encompass the magnetic segments 85 at the internal diameter of the stator, col. 12, lines 2-5. As a result, subsequent honing is needed to finish the bore, col. 12, lines 13-22. In contrast, in the present invention, a tight fit is provided between the inner ejector core 26 and the stator laminations 34 during the molding operation, page 9, lines 6-8. As a result, the unitizing material is not formed against the internal diameter of the stator laminations. Thus, whereas Trago et al. molds a plastic bore, the bore in Applicants' over molded stator assembly features exposed stator laminations free of the plastic molding material. This is not taught or even suggested by Trago et al.

Claim 1 is directed to Applicants' over molded motor stator core structure. The structure includes a stator core comprising plurality of stator laminations having an internal diameter and an external diameter. The claim has been amended to more particularly point out that the stator assembly also includes a bobbin assembly comprising a wire coil wound about a bobbin. Trago et al. describes a stator assembly wherein the poles are designed for winding directly thereabout, and are not contoured for retaining a bobbin. Further, Applicants' claim calls for a stator assembly that is encapsulated so that the internal diameter is exposed. In Trago et al., the plastic is molded to surround the bore and cover the internal surfaces of the stator assembly. Thus, Trago et al. does not teach, or even suggest Applicants' over molded stator assembly as set forth in claim 1.

Claims 2, 4-7, 9 and 10 are dependent upon claim 1 and are not taught or suggested for the reasons set forth with regard to that claim. In addition, attention is directed to dependent claims 5 and 10, which recite that the over molded stator structure is suitable for use as molded without requiring additional machining processes, a feature preferred in the practice of Applicants' invention, and not suggested by the plastic bore and honing operation required in Trago et al.

For these reasons, it is respectfully requested that the rejection of claims 1, 2, 4-7, 9 and 10 under 35 USC § 102(b) be reconsidered and withdrawn, and that the claims be allowed.

Claim Rejection under 35 USC § 103

Claims 3 and 8 were rejected under 35 USC § 103 as unpatentable over Trago et al. in view of by United States Patent No. 5,763,970, issued to Dunning et al. in 1998.

Claim 3 is dependent upon claim 1. Claim 8 is dependent upon claim 6, which is in turn dependent upon claim 1. For the reasons set forth with regard to the rejection of claim 1, Trago et al. does not teach or suggest a stator assembly that includes a bobbin, or that is encapsulated with the internal diameter exposed, as set forth in the independent claim 1. Dunning et al. is cited to show a motor having a housing that includes a sensor cavity. However, nothing in Dunning et al. shows an over molded stator structure that includes a bobbin assembly, or a molded body that encapsulates the stator assembly while leaving the internal diameter exposed. Thus, Dunning et al. does not make up the deficiencies of the primary reference, and even if combined with Trago et al., cannot point the skilled practitioner to Applicants' over molded motor stator structure having these key features.

In addition, Dunning et al. shows a cover 31 that fits about an end of the rotor. The cover includes a hole 67 for mounting a sensor that interacts with an encoder wheel 49 on the rotor. Dunning et al. does not contemplate a sensor in the housing about the stator. Moreover, it does not show a molded body encapsulating the stator assembly. Thus, even if combined with Trago et al., it does not point the practitioner to locate a sensor at the stator assembly, or to provide a cavity in a molded body that encapsulates the stator assembly. Thus, the references, even if combined, do not suggest Applicants' invention that includes a sensor cavity in a molded body encapsulating the stator assembly, in accordance with claims 3 and 8.

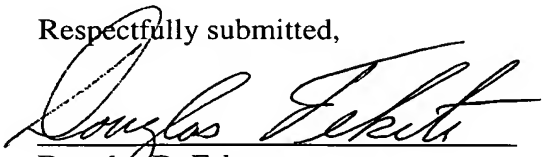
Therefore, it is respectfully requested that the rejection of claims 3 and 8 under 35 USC § 103 be reconsidered and withdrawn, and that the claims be allowed.

Conclusion

It is believed, in view of the amendments and remarks herein, that all grounds of rejection of the claims have been addressed and overcome, and that all claims are in condition for allowance. If it would further prosecution of the application, the Examiner is urged to contact the undersigned at the phone number provided.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 50-0831.

Respectfully submitted,



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